Technology Collaboration Programme by lea



Update from IEAGHG

Tim Dixon

General Manager IEAGHG

CSLF Technical Group Meeting, Warsaw 13 June 2023



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Who are we?

Our internationally recognised name is the IEA Greenhouse Gas R&D Programme (IEAGHG). We are a Technology Collaboration Programme (TCP) and are a part of the International Energy Agency's (IEA's) Energy Technology Network.

Disclaimer

The IEA Greenhouse Gas R&D Programme (IEAGHG) is organised under the auspices of the International Energy Agency (IEA) but is functionally and legally autonomous. Views, findings and publications of the IEA Greenhouse Gas R&D Programme do not necessarily represent the views or policies of the IEA Secretariat or its individual member countries.

Arrangement between CSLF Technical Group and IEAGHG



- How CSLF TG/PIRT and IEAGHG will interact for mutual benefit through increased co-operation
- Agreed by IEAGHG ExCo Oct 2007 and CSLF Technical Group Jan 2008

IEAGHG Primary Activities



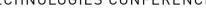
- Funding research into development and deployment of CCUS technologies
- Technical Reports > 360 reports published on all aspects of CCUS
- International Expert Networks

Risk Management; Monitoring; Modelling; Environmental Research; High Temperature Solid Looping; Costs; Social Research

- Conferences
 - GHGT conferences (the largest global conference on CCS)
 GHGT16 23-27 Oct 2022, Lyon France.
 - PCCC conferences PCCC7, NETL Pittsburgh, 25-27 Sep 2023
 - Negative CO₂ Emissions conference Summer 2024 Oxford
 - International CCS Summer Schools





















- The leading conference for CCUS for more than 30 years returns for an 'in person' attendance. Hosted by Club CO2 in Lyon, France.
- Over 700 presentations in 71 sessions, 7 parallel streams, panel sessions, keynotes, plus social events
- 1200 attendees
- All papers on SSRN <u>GHGT-16 Proceedings GHGT</u>
- Refer to www.ghgt.info











- Call for abstracts opens September 2023
- Sponsor prospectus available September 2023
- www.ghgt.info

Reports published

Title	Contractor	Report number	Publication date		
Blue Hydrogen: Beyond the Plant Gate	Element Energy	2022-06	02/08/2022		
Low-Carbon Hydrogen from Natural Gas Global Roadmap	Element Energy	2022-07	03/08/2022		
Start-Up and Shutdown Protocol for Power Stations with CO ₂ Capture	Imperial College London	2022-08	11/08/2022		
Defining the Value of Carbon Capture, Utilization and Storage for a Low-Carbon Future	Andlinger Center for Energy and the Environment, Princeton University	2022-09	11/08/2022		
Mineral Carbonation using Mine Tailings – A Strategic Overview of Potential and Opportunities	Åbo Akademi University	2022-10	15/07/2022		



Reports published



Title	Contractor	Report number	Publication date
Applying ISO Standards to Geologic Storage and EOR Projects	DNV	58-05	Sept 2022
Integrating CCS in international cooperation and carbon markets under Article 6 of the Paris Agreement	Carbon Counts	2023-01	18/01/23

Technical Reviews published



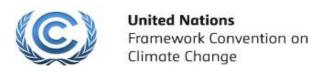
Report Title	IEAGHG Author	Report No.	pdf Creation Date
Quantifying the Socio-Economic Value of CCS: A Review	Keith Burnard	2022-TR03	03/08/22
Carbon Dioxide Removal (CDR) Workshop, Bergen, Norway, 28th June 2022	Jasmin Kemper	2022-TR04	05/08/22
5 th International Workshop on Offshore Geologic CO ₂ Storage	T Dixon, S Neades, and UT	2022-TR05	17/10/22

Expert Networks and other events in 2023



- HTSLC Network: 14-15 Mar 2023, Piacenza, Italy
- Costs Network: 12-13 Apr, Uni Groningen, NL
- Risk Management Network: 28-29 June, Heriot-Watt Uni, Edinburgh, UK
- Monitoring Network: 8-9 Aug, LSU, Louisiana, USA
- 6th Offshore Workshop: 13-14 Sept, Aberdeen Uni, UK
- PCCC-7: 25-27 Sept, Pittsburgh
- Reports of each will be published





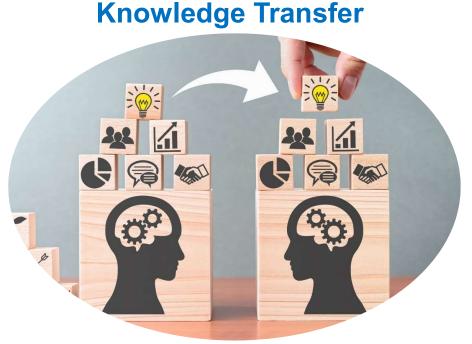
CCS Side Events at COP20, COP21, COP22, COP23, COP24, COP25, COP26, COP27



CSLF Technical Group IEAGHG inputs



CCUS Initiative **IEAGHG** inputs





Expert Reviewers, **Accredited Observer AR6** reviews AR6 – 98 comments provided



ISO TC-265 IEAGHG inputs





London Convention:

Accredited Observer providing updates on CCS: ROAD permit assessment, Offshore workshops

CO₂ Export Resolution 2019

- Report IEAGHG 2021-TR02



COP27 IEAGHG-organised Side-events





(IEAGHG and UT, CCSA, International CCS Knowledge Centre, Bellona)

- Tim Dixon IEAGHG Moderator and Scene Setting
- •Brad Crabtree, Assistant Secretary at the US Department of Energy Welcome
- •Dr David Khoza, **South African** Council for Geoscience South Africa's CCS programme
- •Dr. Peter C. Ekweozoh, Federal Ministry of Science, Technology and Innovation, Nigeria
- •Dayo Adeshina, OVP, Nigeria
- •Abdelghafour Zaabout, University Mohammed 6 Polytechnic, **Morocco**
- •Dr Katherine Romanak, University of Texas Experience in storage for Africa
- •Ruth Herbert, CEO CCSA The role of trade associations in moving CCS forward in Africa
- •Lina Strandvåg Nagell, Bellona Lessons from Norway and EU to help Africa progress CCS
- •Beth Hardy-Valiaho International CCS Knowledge Centre Industry applications of CCS

CCS in the Caribbean (IEAGHG and UT, CATF Pavilion)

- •Tim Dixon, IEAGHG Moderator and Scene-setting
- •Mrs Sandra Fraser, Permanent Secretary, Ministry of Energy, Trinidad and Tobago
- •The Development of a Storage Atlas for Trinidad and Tobago -Professor Andrew Jupiter (UWI), Dr Donnie Boodlal (UTT) and Dr David Alexander (UTT).
- •CCS in Guyana The University of Guyana Ms. Denise Simmons
- •Caribbean and possible funding opportunities Mr Donneil Cain Caribbean Community Climate Change Centre (CCCCC).
- •Wrap up Dr Katherine Romanak, University of Texas



https://enb.iisd.org/carbon-capturestorage-africa-emergingeconomies and https://lnkd.in/gWtn6pC A;

https://www.youtube.com/watch?v=j88
EVTSpez0



UNFCCC developments



- Article 6.4 Supervisory Body
- Framework for international carbon market based on projects/activities. Very active area in UNFCCC since July 2022. Article 6.4 Supervisory Body considering "Removals".
 - Secretariat produced Information Notes on Removals (Land-based and Engineering-based DACCS and BECCS) bias against Engineering. Many submissions.
 - 5 SB meetings so far. 4 Information Notes. IEAGHG provided input 4 times
 - See https://unfccc.int/process-and-meetings/bodies/constituted-bodies/article-64-supervisory-body/meetings-of-the-article-64-supervisory-body
- Global Dialogue under Paris Agreement's Mitigation Work Programme. 3-5 June 2023 at SB58 in Bonn.
- Theme for this first meeting was "Accelerating the Just Energy Transition", four technology areas: of
 Renewable energy, Grid and energy storage, CCUS, and Energy efficiency. GCCSI and IEAGHG provided
 experts for Q&A. See <u>First Global Dialogue and Investment Focused Event under the Sharm el-Sheikh Mitigation</u>
 <u>Ambition and Implementation Work Programme | UNFCCC</u>
- Carbon Management Challenge. President Biden announced. To be launched at COP28, Dubai 30/11-
 - Supported by Denmark, Australia, Canada, Egypt, the European Union, Japan, Saudi Arabia, UAE, Norway, UK and IEAGHG with other CCS organisations

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